



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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OFFICE OF
ENVIRONMENTAL REVIEW
AND ASSESSMENT

NOV 13 2017

Colonel Michael Brooks
Alaska District Engineer
U.S. Army Corps of Engineers
P.O. Box 6898
JBER, Alaska 99506-0898

Dear Colonel Brooks:

The U.S. Environmental Protection Agency Region 10 has reviewed the above-referenced Public Notice, dated September 1, 2017, for a Department of the Army permit under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.¹ The applicant, Armstrong Energy, LLC, proposes to discharge fill into 271.6 acres of wetlands on the North Slope of Alaska to construct drilling pads, gravel roads and associated infrastructure for the production and delivery of oil to the Trans-Alaska Pipeline System. The proposed project, known as the Nanushuk project, would comprise three gravel drill sites, a central processing facility, an operations center, a tie-in pad, infield pipelines on vertical support members, gravel access and infield roads, bridges and a potable water intake system. Per the Public Notice, the applicant proposes no compensatory mitigation to offset the proposed impacts.

The EPA understands and supports Alaska's desire to develop its energy resources in a responsible way that addresses the needs of Alaskans while also safeguarding the State's exceptional natural resources. In addition to reviewing the Public Notice, the EPA has actively participated as a cooperating agency in the National Environmental Policy Act process for the Nanushuk project and has provided extensive comments on prior versions of the EIS. We appreciate the opportunity we have had to work on this matter. We hope to continue working with the applicant and the Alaska District Corps of Engineers (District) both as a cooperating agency on the EIS and as a partner in the Clean Water Act Section 404 permit process, to develop a robust, defensible permit that meets the project purpose and objectives.

The District made the Public Notice available for comment concurrently with the release of a Draft Environmental Impact Statement, for which the Corps serves as lead federal agency. Based on our review of the Public Notice, the draft EIS, and the applicant's mitigation statements, the EPA is concerned that the proposed project may not comply with the Section 404(b)(1) Guidelines for several reasons. First, it is not clear that the proposed project as described in the draft EIS is the least environmentally damaging practicable alternative. While the drill pad configurations are similar among the alternatives, the configuration of access roads varies. It appears that Alternative 5 (Reconfigured Infield Roads Alternative) would provide similar access as the applicant's preferred alternative, while avoiding 30 additional acres of wetland loss. The Public Notice incorporates recent design modifications to the proposed alternative that are not reflected in the draft EIS. Those design modifications to the road width and change of side slope among other design aspects, when applied to other alternatives, may support the Reconfigured Infield Roads Alternative as the LEDPA. There is, however, insufficient information currently available to support this comparison. It is also not clear that all appropriate and practicable steps have been taken to ensure that impacts to aquatic resources have been avoided,

¹ 33 U.S.C. § 1344, 33 U.S.C. § 304.

minimized, and compensated for, consistent with the Guidelines.² The EPA suggests the applicant take further avoidance and minimization efforts to reduce impacts to aquatic resources, and we provide further details in the enclosure.

The 404(b)(1) Guidelines and the Corps' regulations on mitigation require that the applicant demonstrate that discharges of fill into wetlands and other aquatic resources be avoided to the maximum extent practicable. Where it is not possible to avoid placing fill, discharges should be minimized to the maximum extent practicable. Any unavoidable fill into waters that cannot be further minimized should be offset with compensatory mitigation. There is no threshold identified in the regulations below which mitigation is not required. The Guidelines direct that the impacts of waters lost due to fill must be carefully evaluated on a case-by-case basis.³ Consequently, the applicant's statement that "compensatory mitigation is not appropriate for the relatively insignificant areal extent of the Project" is not an appropriate basis under Section 404 for determining the need for or practicability of compensatory mitigation. It also appears that appropriate opportunities for compensatory mitigation have not been thoroughly explored in the applicant's mitigation statement.

Based on our review of currently available information and the concerns articulated above and in our enclosed comments, and pursuant to Part IV, paragraph 3(a) of the 1992 Clean Water Act Section 404(q) Memorandum of Agreement between the EPA and Department of the Army, the EPA is hereby notifying the Alaska District that the proposed discharges may result in substantial and unacceptable impacts to an aquatic resource of national importance; specifically, the EPA concludes that the Colville River Delta, with its associated tributaries and wetlands, and adjacent wetland systems, is an aquatic resource of national importance according to the criteria identified in the Section 404(q) MOA.

The CRD is the largest (550 km²) and most complex delta in northern Alaska, draining 29% (54,100 km²) of the North Slope. The delta contains an extensive and rich mosaic of patterned wetlands, tapped lakes, deep channels, salt marsh and mudflats. The CRD contains approximately 70% of the fish overwintering habitat found on the North Slope and more than 20 species of fish are found in the CRD at various life stages in their life cycle. Eighty species of birds are likely to be found in the CRD including waterfowl and threatened spectacled eiders, shorebirds, seabirds, raptors, and passerines. The CRD also contains important habitats used by caribou as well as other terrestrial mammals. The nearshore waters of the CRD support several species of marine mammals. Species such as spotted seals and beluga whales are known to seasonally occur in the Nigliq Channel within the delta. Both of our agencies have historically recognized the importance of this resource.

Although these resources are clearly significant, it may be of use to the applicant to understand that the EPA's ARNI determination does not preclude a favorable permit decision, nor does the designation of an area as an ARNI prohibit or determine permitting outcomes for this project or any future projects. The requirement to identify an ARNI, which is specified in the MOA, is meant only to ensure that when the EPA requests enhanced coordination on a permit process with the Corps under §404(q), such a request is not made if the resources in question are ecologically unimportant or the impacts trivial. The designation has no other meaning within the 404 process or regulations.

The EPA is also concerned that the Alaska District has recently issued several Public Notices in which no compensatory mitigation is proposed. These proposed projects are likely to have more than minimal

² See 40 C.F.R. §§ 230.10(a), 230.10(d), 230.91 – 230.98.

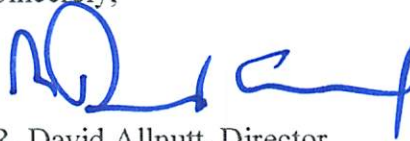
³ See 40 C.F.R. §230.11

impacts to the aquatic ecosystem, and as such, compensatory mitigation should be required. The EPA has identified this issue previously to District staff. In addition, we have recently identified opportunities for possible mitigation, in discussion with other agencies, which we would like to share with the District. We request a discussion of this issue with the District, to address what appear to be emerging issues of policy.

Thank you for the opportunity to provide comments on the proposed project. In accordance with paragraph IV(3)(b) of the Section 404(q) MOA, the EPA will provide further comments on this matter within 25 calendar days after the end of the extended comment period. Because that date falls on a weekend, that letter would be due no later than December 11, 2017.

I appreciate the attention that you and your staff have provided to this project, and EPA Region 10 looks forward to discussing our concerns. In the meantime, my staff is working to identify ways in which we can work together to ensure that any unavoidable impacts are adequately offset with appropriate and practicable compensatory mitigation. Should you have any questions about this letter, please do not hesitate to contact me or have your staff contact Mark Douglas at (907) 271-1217, or by email at douglas.mark@epa.gov.

Sincerely,



R. David Allnutt, Director
Office of Environmental Review and Assessment

Enclosures

Enclosure 1 for POA-2015-25, Nanushuk Project

Project description and recent changes in the Public Notice not reflected in the EIS

The Public Notice on the proposed project incorporates some recent changes to the proposed action--i.e., Alternative 2, or the applicant's preferred alternative -- which were not evaluated in the DEIS. This is stated in the Public Notice (PN). These changes include the reduction in access road width from 38' to 35' and change in side slope from 3:1 to 2:1, resulting in fill volume reduction from 3.22 to 2.76 million cubic yards, and concomitant reductions in fill footprint. The proposed project, or Alternative 2 as described and discussed in the EIS, would originally have resulted in the permanent loss of 331 acres of wetlands. The total footprint, as now proposed in the Public Notice would result in 271.6 acres of permanent loss of wetlands. The PN also does not reflect the removal of Lake MC7903 access road from Alternative 2 project design, which results in a further reduction of approximately 4.6 acres of wetland loss. The applicant is now proposing to use Lake L9211 adjacent to DS2 for potable water. The applicant is also proposing to reduce the number of culvert batteries from 7 to 5 for the proposed project. This information could have been conveyed in the Note to the Reader section of the Executive Summary for full disclosure of project changes. The EPA suggests that the additional clarification of project changes be explicitly discussed and summarized in the FEIS. It should also be made clear that the road width changes are to the access road and not to the infield roads.

Per the applicant's mitigation statement, reducing the access road width contributes to one acre of minimization. It is unclear to the EPA how this number was calculated. A rough calculation of the length of the access road (13.6 miles) and width reduction (three feet) would yield reduction of approximately five acres. It would be helpful to have a clearer explanation of the effects of each of the changes. The EPA suggests that the FEIS should identify these changes more clearly in order to provide complete project information for review.

Least Environmentally Damaging Practicable Alternative

The information provided in the DEIS indicates that the proposed action may not be the LEDPA. Alternative 2, 3, and 4 are similar with respect to the amount of wetland loss, whereas Alternative 5 (Reconfigured Infield Roads Alternative) appears to have the least wetland loss, with a total direct fill into 299.9 acres of wetlands¹. Because drill pad locations are dictated by location of reservoirs and the limitations of existing technology, variations among alternatives are generally based on different configurations of the roadway routes.

The EIS points out that Alternative 2 has the most fill placed in wetlands as well as having the greatest indirect effects, whereas Alternative 5 has the least wetland loss and least indirect effects from the project components². The EPA suggests the applicant consider Alternative 5 to meet their purpose and need while reducing the direct and indirect aquatic resource impacts. The applicant has not provided a justification for why Alternative 5, the possible LEDPA, is not a viable alternative, and which must be provided to comply with the Guidelines. The proposal described in the Public Notice maintains the Alternative 2 layout and road configuration, as studied in the EIS, and incorporates the above-mentioned changes to the project, which results in

¹ See Table 3.8.7

² See Section 3.8.6.1; 3.8.6.4; and Table 3.8-14.

an approximate 20% reduction to roadway impacts. The other alternatives would be expected to have a similar reduction of wetland impacts once the same minimization measures are applied, and result in Alternative 5 still being the LEDPA.

The EPA suggests the applicant further consider Alternative 5 road configurations, and evaluate any opportunities for additional avoidance and minimization to wetland impacts. Reduction of fill would also reduce the amount of gravel required for construction, which would reduce gravel mining impacts compared to the proposed action. The EPA suggests the applicant consider and analyze a route variation to the Alternative 5 configuration to avoid the lake complex of Lake MC7903 and the three smaller lakes by rerouting the alignment south of the complex. While this may slightly lengthen the road, it would potentially reduce the secondary impacts to the lake area complex. This may cause a slight shift to the Central Processing Facility location and require moving the Operations Center to the new alignment, but it may reduce the need for the culvert battery between the lakes, as depicted in Figure 3.6-2.

Compensatory Mitigation

In its initial permit application in 2015, as found on the project website, the project proponent provided a mitigation statement discussing the intent to follow the requirements of the 2008 Final Rule on Compensatory Mitigation (40 CFR 230). The original mitigation statement stated that the applicant proposed purchasing credits from a mitigation bank, in-lieu fee program, and/or work with the Corps to identify permittee responsible mitigation options. In the updated mitigation statement accompanying the September 1, 2017 Public Notice, the applicant does not propose to provide any compensatory mitigation for the loss of 271.6 acres of wetlands. The EPA is unaware of changes to regulations or policies regarding compensatory mitigation in the intervening time.

Both the Guidelines and the Corps' regulations require that the applicant provide compensatory mitigation for unavoidable losses, unless compensatory mitigation opportunities are not available or practicable. The information provided to date does not demonstrate that this requirement has been met. Rather, the applicant merely states that the losses of wetlands from the affected watersheds are not significant, and that therefore mitigation is not appropriate. This is not supported by any factual or technical analysis.

Moreover, impacts associated with wetland and aquatic resource losses should be evaluated on a case-by-case basis, to determine whether such impacts will cause or contribute to significant degradation of waters of the U.S.³ Rather than doing so here, the applicant simply opines that because the proposed losses from fill comprise a small percentage of the land cover in the three HUC-10 watersheds, they are not significant. Using the percentage of loss within the watershed as the sole basis of analysis is scientifically unsupportable; the impacts from wetland loss are dependent on type of wetland loss, location within the watershed, as well as spatial context in relation to other aquatic resources. Moreover, impacts occur simultaneously at multiple spatial scales. The analysis of percent land cover lost may help inform a cumulative impacts analysis, but it is not the sole basis for one, and does not provide meaningful information about how the proposed losses of wetlands affect the aquatic ecosystem.

³ See 40 CFR 230.11

The applicant states that there is a lack of mitigation opportunities but provides no documentation or analysis to support this assertion. There is no information in the Public Notice or in the DEIS demonstrating whether the applicant has investigated or evaluated all mitigation opportunities. The Final Compensatory Mitigation Rule states, "Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts." (33 CFR 332.3 (a); 40 CFR 230.93 (a)). There remain on the North Slope, for example, abandoned gravel fill features such as roads, pads and airstrips, which may be candidates for restoration of some degree of aquatic function. These possible options for providing permittee-responsible mitigation opportunities should be investigated and evaluated. Furthermore, based on discussions with several other agencies, the EPA believes there are several potentially unexplored opportunities for compensatory mitigation. We believe that a discussion with the District on this as a policy issue, along with various Alaska state agencies, would prove productive toward identifying appropriate opportunities for compensatory mitigation.

The maps provided in Figures 1 and 2 of the mitigation statement appear to be incomplete, and may not capture all the current and permitted impacts within the watershed identified in the applicant's proposed mitigation statement. The EPA requests further details of how these figures were developed.

The watershed size figures in Table 3.8-7 of the DEIS differ from what the applicant has used in the mitigation statement, and this leads to confusion in determining the percentage of loss in the watershed due to the current project. The EPA suggests the watershed size be standardized in both the EIS and PN.

Other Comments

It is unknown which of the 80 BMPs listed in Section 6.3-1 of the DEIS are incorporated in the actual design of the project. Instead, the section reads as a list of potential BMPs and standards for constructing oil-related infrastructure on the Arctic Coastal Plain. It would be helpful in evaluating the project proposed in the Public Notice for the applicant to identify which of the listed items have been incorporated in the project design. The applicant's mitigation statement would also benefit from focusing on the CWA 404 mitigation efforts and not merely including the list of general BMPs.

The recent changes to the project proposal which are captured in the PN but not the EIS appear to contradict the ADNR requirements related to road requirements for caribou crossing--specifically, Item 15 which is listed in Table 6.3-1 in the DEIS. It would appear the change in side slope of 3:1 to 2:1 may make it more difficult for caribou migration along the miles of proposed new gravel roadways. EPA suggests that the document analyze the impacts to the caribou since the ADNR requirement is not being implemented.

Among the 80 listed BMPs in Table 6.3-1 of the DEIS, there does not appear to be a reference to side slopes on the pads. If the slopes are different than the proposed roadway slopes, the EPA suggests that the applicant incorporate the 2:1 slope to further reduce the overall footprint of the project.